

WHAT IS CLAIMED IS:

- 1                   1.       A method for managing failure messages for email messages, the  
2 method comprising:  
3                   determining a plurality of rules that classify failure messages in a plurality of  
4 failure types;  
5                   sending an email message to an email address associated with an Internet  
6 service provider (ISP);  
7                   determining a failure message for the email message;  
8                   determining a rule in the plurality of rules that applies to the failure message;  
9 and  
10                  determining, for the failure message, a failure type in the plurality of failure  
11 types based on the determined rule.
- 1                   2.       The method of claim 1, further comprising performing an action based  
2 on the failure type.
- 1                   3.       The method of claim 2, wherein the action comprises:  
2                   determining an invalidation rule that is associated with the failure type; and  
3                   performing the action based on the determined invalidation rule and the ISP  
4 associated with the email address.
- 1                   4.       The method of claim 3, wherein the action comprises marking the  
2 email address as invalid.
- 1                   5.       The method of claim 3, wherein different ISPs have different  
2 invalidation rules for marking the email address as invalid.
- 1                   6.       The method of claim 2, wherein the action comprises storing  
2 information for the email address based on the failure type determined.
- 1                   7.       The method of claim 1, wherein the plurality of rules include rules for  
2 a plurality of ISPs, wherein the rules for the ISP associated with the email address are used to  
3 determine the failure type.
- 1                   8.       The method of claim 1, wherein the plurality of rules each include  
2 information for a failure message, wherein determining the rule that applies to the failure

3 message comprises comparing content of the failure message to the information for the rules  
4 to determine a rule that includes information that matches the content of the failure message.

1 9. The method of claim 1, wherein the failure message comprises a  
2 failure message that is determined before delivery of the email message.

1 10. The method of claim 1, wherein the failure message comprises a  
2 failure message email message that is determined after delivery of the email message.

1 11. The method of claim 1, wherein the failure message comprises a  
2 failure message sent by the ISP.

1 12. A method for categorizing failure messages from a plurality of Internet  
2 service providers (ISPs), the method comprising:

3 determining a plurality of failure types;

4 determining a plurality of sets of rules for the failure types that categorize a  
5 failure message into a failure type, wherein each ISP in the plurality of ISPs is associated  
6 with a set of rules in the plurality of rules;

7 receiving a failure message associated with an ISP;

8 determining a set of rules that is associated with the ISP;

9 determining a rule in the set of rules associated with the ISP for the failure  
10 message; and

11 determining a failure type associated with the rule.

1 13. The method of claim 12, further comprising:

2 determining an email address associated with the failure message; and

3 determining if the email address should be marked as invalid based on the  
4 failure type determined.

1 14. The method of claim 1, wherein determining if the email address  
2 should be invalidated comprises:

3 determining a set of invalidation rules that is associated with the ISP;

4 determining an invalidation rule in the determined set of invalidation rules  
5 associated with the determined failure type; and

6 determining if the email address should be marked as invalid based on the  
7 determined invalidation rule.

1                   15.     The method of claim 14, wherein determining if the email address  
2     should be marked as invalid based on the invalidation rule comprises marking the email  
3     address as invalid if a failure message for the failure type has been received a certain number  
4     of times.

1                   16.     The method of claim 12, further comprising storing information for the  
2     email address indicating the failure message of the determined failure type was received.

1                   17.     The method of claim 12, wherein the rule includes information for a  
2     failure message, wherein determining the rule that applies to the failure message comprises  
3     comparing content of the failure message to the information for the failure message for the  
4     rules to determine a rule that includes information that matches the content of the failure  
5     message.

1                   18.     A method for categorizing failure messages, the method comprising:  
2                   determining a plurality of failure types for failure messages;  
3                   sending an email message to an email address associated with an Internet  
4     service provider (ISP);  
5                   determining a failure message for the email message; and  
6                   determining, for the failure message, a failure type in the plurality of failure  
7     types.

1                   19.     The method of claim 18, wherein determining the plurality of failure  
2     types comprises determining a plurality of sets of rules, wherein ISPs in a plurality of ISPs  
3     are associated with a set of rules, the rules in each set of rules corresponding to failure types  
4     in the plurality of failure types.

1                   20.     The method of claim 19, wherein determining the failure message  
2     comprising:  
3                   determining a set of rules that is associated with the ISP;  
4                   determining a rule in the determined set of rules that is associated with the  
5     failure message; and  
6                   determining a failure type associated with the rule.

1                   21.     The method of claim 20, wherein determining the rule comprising  
2     comparing the rules to content of the failure message to determine a rule that includes  
3     information that matches the content of the failure message.

1                   22.     The method of claim 18, further comprising performing an action  
2     based on the failure type.

1                   23.     The method of claim 22, wherein the action comprises:  
2                   determining an invalidation rule that is associated with the failure type; and  
3                   performing the action based on the determined invalidation rule and the ISP  
4     associated with the email address.

1                   24.     The method of claim 23, wherein the action comprises marking the  
2     email address as invalid.

1                   25.     The method of claim 23, wherein different ISPs have different  
2     invalidation rules for marking the email address as invalid.

1                   26.     The method of claim 23, wherein the action comprises storing  
2     information for the email address based on the failure type determined.

1                   27.     A system for classifying failure messages, the system comprising:  
2                   a plurality of Internet service providers (ISPs); and  
3                   a failure message processor configured to process failure messages associated  
4     with an ISP, the failure message processor comprising:  
5                   a plurality of sets of rules that categorize failure messages into a failure  
6     type, wherein each ISP in the plurality of ISPs is associated with a set of rules;  
7                   logic to determine a failure message associated with an ISP;  
8                   logic to determine a set of rules that is associated with the ISP;  
9                   logic to determine a rule in the set of rules associated with the ISP for  
10    the failure message; and  
11                  logic to determine a failure type associated with the rule.

1                   28.     The system of claim 27, wherein the failure message processor further  
2     comprises:  
3                   logic to determine an email address associated with the failure message; and

4                    logic to determine if the email address should be marked as invalid based on  
5 the failure type determined.

1                    29.     The system of claim 28, wherein the logic to determine if the email  
2 address should be invalidated comprises:

3                    logic to determine a set of invalidation rules that is associated with the ISP;

4                    logic to determine an invalidation rule associated with the determined failure  
5 type; and

6                    logic to determine if the email address should be marked as invalid based on  
7 the invalidation rule.

1                    30.     The system of claim 29, wherein the logic to determine if the email  
2 address should be marked as invalid based on the invalidation rule comprises logic to mark  
3 the email address as invalid if a failure message for the failure type has been received a  
4 certain number of times.

1                    31.     The system of claim 27, wherein the failure message processor further  
2 comprises logic to store information for the email address indicating the failure message of  
3 the determined failure type was received.